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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,216	09/18/2003	Hideo Sano	3796.P0042US	8302
23474 7590 05/13/2008 FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631			EXAMINER YANG, JIE	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 05/13/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/666,216

Applicant(s)

SANO ET AL.

Examiner

JIE YANG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/26/2007 has been entered.

Status of the Claims

Claim 1 has been amended from original claim, claims 2-3 are cancelled, claims 8-12 are added as new claims, and claims 1, 4-12 are pending in application.

Status of the Previous Rejections

Previous rejections of claim 1, 4 and 7 under 35 U.S.C. 103(a) as being unpatentable over JP04000353 A (JP'353) in view of JP2001-105329 (JP'329) are withdrawn in view of the applicants amendment to the claims.

Previous rejections of claim 1, 4 and 7 under 35 U.S.C. 103(a) as being unpatentable over JP04000353 A (JP'353) in view of JP2002-317255 (JP'255) are maintained in view of the applicants amendment to the claims. The new limitation in view of the applicant's amendment to the claim 1 has been addressed as following.

Previous rejections of claims 5 and 6 under 35 U.S.C. 103(a) as being unpatentable over JP'353 in view of JP'255 are still maintained.

The new added claims 8-12 are addressed as following.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4 -12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP04000353 A (JP'353) in view of JP2002-317255 (JP'255).

JP'353 in view of JP'255 is applied to the claims 1, 4-7 for the same reason as state in the previous rejection dated 12/26/2007.

As to the amendment in claim 1, regarding "continuously extruding" limitation, the Applicant discussed in the specification: "In the case of extruding a long product, a flow guide 4 is provided at the front of a solid die so that successive billets can be used for continuous extrusions." (Page 11, line 6-8 of the instant specification). JP'255 teaches the similar flow guide for the extruding the similar aluminum alloy

(Abstract and Fig.2 of JP'55) as recited in the instant invention. Therefore, the continuous extrusions operation could be expected in the process of JP'353 in view of JP'255. MPEP 2112 III&IV.

Regarding the apparatus limitations related to the flow guide, as pointed out in the previous office action, although JP'353 does not specify the apparatus limitations of said method claims, the prior art of JP'255 (drawn extrusion of similar 6xxx alloys) teaches substantially similar extrusion apparatus parameters ([0018-0019] of JP'255). JP'255 teaches a flow guide is used during said extrusion, and is placed at the front of the solid die (#23, see Fig.2 of JP'255). JP'255 further teaches an inner circumferential surface is separated from an outer circumferential surface with the bearing of the solid die at a distance of $A \geq 20\text{mm}$ (abstract, see also figures of JP'255), which is close to the instant amended limitation of 9-15mm. JP'255 teaches the thickness of the flow guide 23 is $B=5-25\%$ of the outer diameter of the flow guide (which is substantially equal to the thickness of the billet, see Fig.2). Therefore, it would have been obvious to one of ordinary skill in the art to use the apparatus taught by JP'255 when extruding the alloys taught by JP'353 because JP'255 teaches a product with no

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cracking and excellent strength can be obtained (Abstract of JP'255).

Regarding the new added claims 8 and 10, which depend on claims 4 and 6 separately, include the same limitations as recited in the instant claim 5. Refer to the previous rejection for the claims 4-6 in the previous office action marked on 12/26/2007, claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'353 in view of JP'255.

Regarding the new added claim 9, which depends on claim 6, includes the same limitations as recited in the instant claim 4. Refer to the previous rejection for the claims 4 and 6 in the previous office action marked on 12/26/2007, claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'353 in view of JP'255.

Regarding the new added claims 11 and 12, which depend on claims 1 and 6 separately, includes the composition limitations of claims 1 and 4. As pointed out in the previous office action marked on 12/26/2007, JP'353 teaches a process of extruding an aluminum alloy, with alloying ranges of Si, Mg, Cu, Mn and optionally Cr and Zr that substantially overlaps the alloy composition in the instant claims 11 and 12 (Refer to the previous rejections for claim 1 and 4), which is a prima facie case of obviousness. SEE MPEP 2144.05 I. Regarding the

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"consisting of" language in the instant claims, it is well settled that Omission of an element with a corresponding omission of function is within the level of ordinary skill. In re Wilson 153 USPQ 740; In re Larson 144 USPQ 347; In re Karlson 136 USPQ 184; In re Portz 145 USPQ 397; In re Liston 58 USPQ 481; In re Porter 20 USPQ 298. In the instant case, the Examiner notices the Fe (0.1-0.5wt%), B (0.0001-0.02wt%) and Ti (0.001-0.1wt%) are not essential elements in the prior art JP'353 (Page 2, 5th paragraph, and Page 3, 2nd paragraph of JP'353's translation). As discussed in JP'353, 0.1-0.5wt% Fe has the effectiveness of making cast structure detailed and preventing a casting crack (Page 2, 5th paragraph of JP'353's translation); B: 0.0001 to 0.02wt% and/or Ti: 0.001-0.1wt% have effectiveness which prevents a casting crack (Page 3, lines 4-9 of JP'353's translation). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to remove the non-essential elements of Fe or B or Ti from the Al alloy in JP'253 in view of JP'255 with a corresponding omission of functions of Fe or B or Ti.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP04000353 A (JP'353) in view of JP2002-317255 (JP'255) and further in view of JP07-041897 (JP'897).

JP'353 in view of JP'255 is applied to the claim 6 for the same reason as stated in the previous rejection dated 12/26/2007, which is further evidenced by JP'897. JP'897 teaches an aluminum alloy with a composition range that overlaps the composition ranges of the instant invention (Abstract of JP'897) is extruded in rectangular tubing for bumper member (Fig.1 and [0015] of JP'897). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to extrude said Al-Cu-Mg-Si-Mn alloy into a variety of configurations including hollow and solid section because both JP'353 (Table 3, last paragraph of page 8) and JP'897 (abstract) teach the alloy has good extrusion properties.

Response to Arguments

Applicant's arguments, see "applicant arguments/remarks", filed 3/17/2008, with respect to objection to the rejections for claims under 35 U.S.C. 103(a) as being unpatentable over JP04000353 A (JP'353) in view of JP2002-317255 (JP'255) have been fully considered and are not persuasive.

Applicant argues:

1) JP'353 does not disclose a specific alloy composition falling within the scope of the present claims nor does it disclose the specific apparatus limitations required by the present claims.

2) JP'353 and JP'255 clearly disclose an alloy composition outside of the scope of newly presented claims 10 and 11 (should be claims 11-12—noted by the Examiner).

3) the previous Declaration under 37 CFR 1.132 of record in the present application establishes the patentability of the presently claimed invention.

4) regarding claim 6, none of the references disclose the extrusion of a hollow product.

In response,

Regarding the argument 1), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, JP'353 in view JP'255 teaches the composition and apparatus limitations as recited in the instant claims. The detail discussion and motivation for the combination could refer to the rejection listed above and the previous office action marked 12/26/2007.

Regarding the argument 2, claims 11-12 are rejected under 35 U.S.C. 103 as discussed above.

Regarding the argument 3, the Examiner disagrees with the argument. As pointed out in the previous office action marked 12/26/2007, An affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. In *re Burckel*, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979), see also MPEP 716.02(e). "A comparison of the claimed

invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." In re Merchant, 575 F.2d 865, 868, 197 USPQ 785,787 (CCPA 1978) (emphasis in original). Where the comparison is not identical with the reference disclosure, deviations therefrom should be noted and evaluated, and if significant, explanation should be required. In re Armstrong, 280 F.2d 132, 126 USPQ 281 (CCPA 1960). The applicant has not compared the instant alloy to the closest prior art of record.

Regarding the argument 4, please refer to the previous office action marked on 12/26/2007 and the rejection for claim 6 in the instant office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/Roy King/

Supervisory Patent Examiner, Art Unit 1793